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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,726	03/21/2006	Masahiko Iizumi	NS-US065336	6887

22919 7590 01/26/2009  
GLOBAL IP COUNSELORS, LLP  
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WASHINGTON, DC 20036-2680

EXAMINER
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MCMAHON, MARGUERITE J

ART UNIT	PAPER NUMBER
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3741

MAIL DATE	DELIVERY MODE
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01/26/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/572,726	<b>Applicant(s)</b> IIZUMI ET AL.	
	<b>Examiner</b> Marguerite J. McMahon	<b>Art Unit</b> 3741	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10/21/08.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 15-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/16/06</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Election/Restrictions*

Claims 15-41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/12/08.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi et al (6,622,685). Note a surface roughening method comprising: moving a cutting tool 6 having a cutting head 7 along a longitudinal axis of an article, wherein the cutting head comprises a radial cutting blade having a first cutting edge 7a and a second cutting edge 20b, and rotating the cutting head about the longitudinal axis of the article such that the first cutting edge of the cutting blade forms a first machined pattern of peaks and valleys 21 on a surface of the article, wherein the second cutting edge of the cutting blade removes at least a portion of the peaks in the first machined pattern to form roughened fracture surfaces 22, 9 in a second machined pattern on the surface of the article, wherein the second machined pattern comprises an arrangement of grooves corresponding to the valleys in the first pattern and separated by lands corresponding to the roughed fracture surfaces, wherein an entire cross section of each peak in the first

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pattern is fractured, wherein each of the grooves in the second machined pattern is symmetrical, wherein each of the grooves in the second machined pattern defined a v-shape, wherein a trailing edge of the cutting head roughens the surface of each land, wherein the article defines a cylindrical body, wherein the first cutting edge cuts an interior surface of the cylindrical body into the first machined pattern comprising a first substantially helical pattern defined by the alternating peaks and valleys, and wherein the second cutting edge creates the roughened fracture surfaces on the interior surface by applying stress on the peaks to fracture at least a portion of the peaks to form the second machined pattern comprising a second substantially helical pattern defined by lands corresponding to the roughened fracture surfaces separated by grooves corresponding to the valleys, wherein the article comprises a nonferrous metal (see col. 1, lines 25-27), and applying a coating overlaying the first and second machined patterns on the surface of the article (see abstract).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al (6,622,685) in view of Beck et al (2001/0023859). Takahashi et al show everything except employing plasma deposition, the coating comprising at least one of a ceramic or ferrous metal, and particular compositions. Beck et al teach that it is old in

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the art to employ plasma deposition as the means of coating the article (see paragraph 16), the coating comprising at least one of a ceramic or ferrous metal. It would have been obvious to one having ordinary skill in the art to modify Takahashi et al by employing plasma deposition as the means of coating the article, since this is conventional and to employ a coating comprising at least one of a ceramic or ferrous metal, since this is also conventional. Note that it would have been an obvious matter of design choice to employ the particular types of ceramic or ferrous metals, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marguerite J. McMahon whose telephone number is 571-272-4848. The examiner can normally be reached on Monday- Friday, 10am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Cuff can be reached on 571-272-6778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marguerite McMahon  
Primary Examiner  
Art Unit 3741

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Primary Examiner, Art Unit 3741